

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016687**Date Inspected:** 04-Sep-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr. Huang min**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder(OBG)**Summary of Items Observed:**

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

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The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 06576.

Magnetic Particle Testing (MT)

This QA performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated MT report for this date. The members are identified as OBG Floor beam weld Components. Total number of welds MT Tested: 20 No's. The weld designations are review as follows:

1. FB4107A-001-003~006,019,020,021,022
2. FB4107-001-011~016,023,026,027,030,035,038.

This QA Inspector Randomly observed the following work in progress:

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Submerged Arc Welding (SAW) of weld joint CB3002C-018-001. Welder is identified as 215690. ZPMC Quality Control (QC) is identified as Mr. Zhang zhi wei. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2221-B-L2c-S-2.

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Flux Cored Arc Welding (FCAW) of weld joint X4254D-001-001. Welder is identified as 048625. ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2231-TC-U4b-F-2.

FCAW of weld joint SP3144A-001-023,024. Welder is identified as 051246. ZPMC Quality Control (QC) is identified as Mr. Xu hai yang. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint SP3144A-001-029,030. Welder is identified as 205386. ZPMC Quality Control (QC) is identified as Mr. Xu hai yang. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint SA3078-004-002. Welder is identified as 204342. ZPMC Quality Control (QC) is identified as Mr. Guopan. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2331-C-P2-F-2.

During Random in process visual inspection of Steel Barrier W2-SB1, 5 and 6, this QA Inspector observed that the excessive root openings between parts measured to be approximately 7 mm to 12mm. These root openings exceed the maximum tolerance specified in AWS D1.5 2002 section 3, paragraph 3.3.1. The effected weld joints are identified as W2-SB1-9.5-062, 031, W2-SB6-9-093,062,031, W2-SB5-8-144 and 124. The approved drawing specifies fillet welds of these joints. This QA informed to ZPMC QC Certified Welding Inspector (CWI) identified as Mr. Huang min and American Bridge/Fluor (AB/F) QA Inspector Mr. Liu Hua Jie. Mr. Liu Fa Wen and Mr. Liu Hua Jie informed this QA that the root openings would be corrected in a manner compliant with the contract documents. Refer the attached photos for further information.

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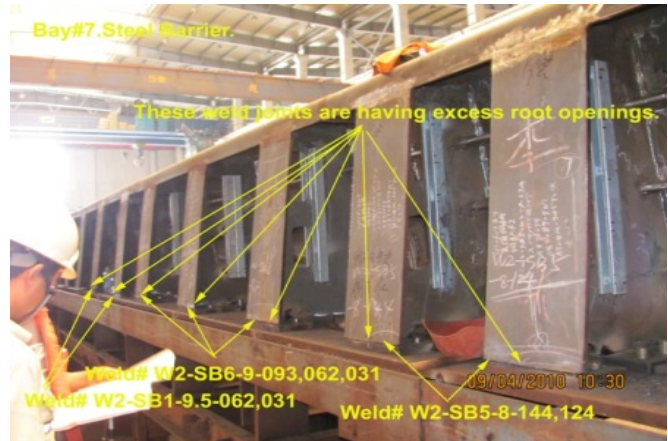
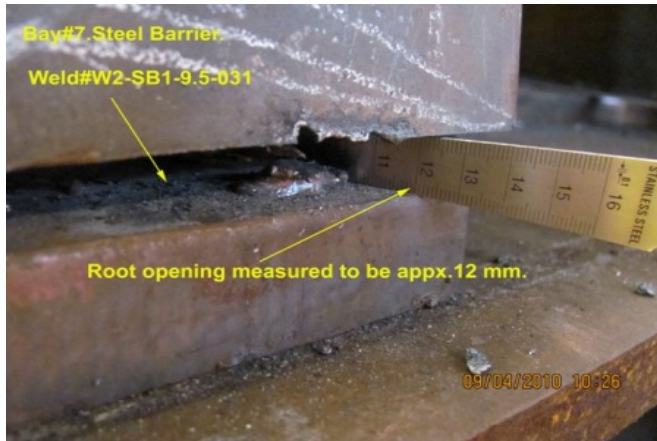
FCAW of weld joint BK004A3-053-040. Welder is identified as 040706. ZPMC Quality Control (QC) is identified as Mr. Liu Fa Wen. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132.

FCAW of weld joint BK004A3-053-041. Welder is identified as 500479. ZPMC Quality Control (QC) is identified as Mr. Liu Fa Wen. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By: Prabhu,Surendra

Quality Assurance Inspector

Reviewed By: Hall,Steven

QA Reviewer